



**History In-Service Team,
Supporting Leaving Certificate History.
www.hist.ie**

Later Modern, Europe and the Wider World

Topic 6: The United States and the World, 1945-89

Documents for Case Study:

The Moon landing, 1969

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Tel: 047 74008 Fax: 047 74029 email: adminhg@eircom.net web site: www.hist.ie

Introduction to the Series of Documents

The USA topic (Later Modern Europe, Topic 6, *The United States and the world, 1949-1989*) is nominated as the prescribed topic for documents-based study, for examination in June 2008 and June 2009. The case studies are:

- The Montgomery bus boycott, 1956.
- Lyndon Johnson and Vietnam, 1963-1968.
- The Moon landing, 1969.

The History In-Service Team [HIST] prepared an in-service day [autumn 2006] focusing on teachers' needs in relation to this topic, with a variety of appropriate methodological approaches considered with reference to the syllabus aims, objectives and learning outcomes. Suitable sources of different types were also presented at this in-service session.

The suite of documents prepared for each of the three case studies features documents of different types and enables the student to look at the case study from different points of view. They also root the case study in the context of the topic as a whole, with associated elements, concepts and key personalities also featuring.

Each set of documents is accompanied by a general introduction, a series of biographical notes of people mentioned in the documents, and an extensive glossary of key terms that arise from the case studies.

Teachers need not feel that they must deal with every document that is presented, nor indeed with whole documents. Although designed to constitute a logical, sequential, evidence-based investigation of each case study, the material can just as readily be used selectively by teachers as their needs require, with specific documents or parts of documents chosen as the teacher deems suitable.

These documents are presented in such an order that, if followed, enables students to develop awareness of the issues and events relating to the case study on an incremental basis, with each document introduced and glossed as appropriate and accompanied by a series of questions to assist in their interrogation.

Teachers may see some similarity between this material and that prepared by the National Library of Ireland and the NCCA in relation to the topics prescribed for documents-based study in the examination years 2006 and 2007. This material, available on www.nli.ie and www.hist.ie, as well as on the 2006 HIST CD, has met with a very positive reaction from teachers to date. It is to be hoped that this latest support project will be equally well-received.

The research and writing of the materials was carried out by Ms Jane Finucane (TCD). Document 12 was inserted by the HIST team. The materials were edited for publication by the HIST Team [Pat Callan, National Coordinator, John Dredge, Linda Neary, Gerard O'Sullivan, Regional Development Officers]. I would like to express my thanks to Dr Ciaran Brady (TCD) for his encouragement in initiating the project. Teachers are encouraged to contact the HIST team with any comments or suggestions on the use of this material.

Pat Callan,
National Coordinator,
Leaving Certificate History,
November 2006.

Introduction to the case study documents

The moon landing (1969) was the culmination of eleven years of the American space programme, which started with the foundation of NASA in response to Soviet success in space. The decision to concentrate on landing a manned spaceflight on the moon (Document 1, Document 2, Document 4) was made in very similar circumstances in 1961 (Document 1, Document 2). It was a difficult and expensive project, and support for it was not whole-hearted, either before (Document 3, Document 4, Document 12) or after (Document 10, Document 11) the moon landing succeeded.

It was clear that the cost of the moon had to be considered against other factors (Document 3): the danger to astronauts (Document 6), the competing costs of war (Document 4), poverty and inequality in America (Document 11, Document 12). However, contemporaries claimed that the advantages of space exploration included international prestige (Document 1, Document 2, Document 5, Document 9), military applications (Document 4), political gain (Document 7), the expansion of knowledge (Document 2, Document 8) and the confirmation of human and technical strengths (Document 8, Document 9 Document 10). Official statements on the moon landing suggested that these advantages not only outweighed, but had the potential to eliminate, concerns about social problems (Document 9, Document 11). Despite these claims, and the high politics involved in the space programme, there is evidence in the documents of informal (Document 5), casual (Document 7) and mystical (Document 9) attitudes to the moon landing: signs of the youth culture and the counter-culture which developed in the 1960s.

In the context of the Leaving Cert Syllabus, the Moon landing is a case study for the *Culture, Religion and Science* perspective. The documents chosen are relevant to most of the elements outlined for this perspective: including advances in space technology, but also in military (Document 4) and information (Document 7) technology; religion in American culture (Document 6, Document 9); the mass media (Document 5, Document 6, Document 7); youth culture and counter culture (Document 5, Document 9, Document 10); and the “collapse of consensus” (Document 10).

The introduction to each document is kept to a minimum. Contextual information, along with explanations of words, can be found in the sections on biographical notes and glossary. Words which are underlined are included in these sections: generally a word is underlined only in its first appearance in a document. Where first names are not included in the document, they are given in square brackets []. Anything in square brackets is not in the original text.

Teachers can access relevant web sites on this case study using the resource finder on www.hist.ie.

An excellent documentary called “The Eagle has Landed”, featuring interviews with the Apollo 11 astronauts, can be found by entering the search term – “The Eagle has Landed” – on video.google.com.

A brief video showing the different facets of the Apollo programme, from launch site to moon landing to re-entry, is found on <http://www.firstscience.com/site/video/part1.asp>

Biographical Notes

Edwin (Buzz) Aldrin The second man to walk on the moon: Aldrin accompanied [Neil Armstrong](#) on the first moon-landing.

Neil Armstrong Member of the [Apollo 11](#) team and first man to set foot on the moon.

Harry Byrd Virginian Senator, Chairman of the Congress Finance Committee. He worked behind the scenes to gain approval from the [Senate](#) for the tax cuts which were a vital part of Johnson's presidential campaign in 1964. Johnson had to convince him that enough money could be saved on to stop the tax cut from increasing federal overspending.

Michael Collins Command Module pilot of [Apollo 11](#): Collins remained in orbit around the moon until [Armstrong](#) and [Aldrin](#) rejoined him. After the moon-landing, he went on to a career in public service.

John Glenn In February 1962, as part of the [Mercury Programme](#), Glenn was the first American astronaut to orbit the earth. Afterwards, he attempted to launch a political career

Lyndon Johnson Democrat, Vice President to [John F. Kennedy](#), President from 1963 to 1969. His Presidency came to be dominated by the Vietnam War and by his proposals for comprehensive social reform: the '[Great Society](#)'. Under Kennedy, he was Chairman of the [National Space and Aeronautics Council](#), and steered Kennedy towards the manned moon-landing as the ideal project for America in 1961. He continued to champion the cause while President, although NASA's funding dropped in this period.

John F. Kennedy Democrat, President of the U.S. from 1960-1963, having beaten the Republican candidate [Richard Nixon](#) in the presidential election. Kennedy launched the 'race to the moon' in May 1961, shortly after the U.S.S.R had achieved the first manned space-flight.

Nikita Khrushchev Premier of the [Soviet Union](#) 1958-64. He claimed that his country's launch of the first satellite (1957) and of the first manned space flight (1961) demonstrated the strength of communism and the superiority of Soviet technology.

Norman Mailer Journalist and novelist. His fiction and non-fiction both used real events to criticize the U.S. establishment: in particular, centralized and bureaucratic government.

Robert McNamara Secretary of Defense 1961-1968. He was enthusiastic about the use of aeronautic research to boost America's prestige, but also wanted to explore military applications which [NASA](#) believed would delay the moon-landing. Several attempts by the U.S. Air Force to operate its own space research and exploration were cancelled during the 1960s.

Richard Nixon Nixon, a Republican, was president of the U.S. from 1969 to 1974. He greeted the moon-landing as a major coup for America. His presidency had little effect on the [Apollo programme](#). From the range of options suggested after 1969, he chose concentrate on the development of space shuttles.

Harry Robins Haldeman Chief of staff during [President Richard Nixon's](#) first administration, famous for his efficient management of the White House and his downfall in the Watergate scandal.

William Safire Campaigner, White House aide, and speechwriter for President Richard [Nixon](#); now a columnist with the New York Times

Alan Shepard In May 1961, Shepard became the first American in space, completing a twenty-minute, sub-orbital flight into space aboard the Project [Mercury](#) space capsule Freedom

James Webb Administrator of [NASA](#), 1961-8. He had held a number of public service positions in Washington and was able to use his knowledge and connections to lobby for funding. He was criticized over the [Apollo 1](#) fatalities in 1967, and resigned in 1968

Jerome Weisner Special Assistant to the President for Science and Technology under [John F. Kennedy](#)

Glossary

Age of Aquarius The division of the [Great Year](#), following the [Age of Pisces](#). Various considered to have started in the early- or mid-twentieth-century, or to be due in about 2150 or 2600. The idea that the constellation was changing 1960s culture, and that “peace would rule the planets, and love would rule the stars” was made popular in the controversial musical *Hair* (1967) with the song “Aquarius”. It was the basis of “New Age” thinking.

Age of Pisces Astrological description for the division of the [Great Year](#) which, by some calculations, began around the birth of Christ. The Age of Pisces is thought by astrologers to have influenced the founding of organized religion and universal structures.

Apollo The name given to the moon-landing programme launched by [President Kennedy](#) in 1961, and to the seventeen spacecraft used by the programme between 1967 and 1972.

Apollo 11 made the first manned moon-landing. Apollo 1 was destroyed by fire, with three fatalities, while it was on the ground.

Appropriating Committees (Appropriations Committees or Committees of Appropriation) are the committees of the [Senate](#) and the [House of Representatives](#) with the responsibility for preparing bills on spending.

Capcom The standard abbreviation used by [NASA](#) for “Capsule Communicator”. The “Capsule Communicator” is usually an astronaut, and the only person at ground level who communicates directly with astronauts in space.

Cape Kennedy Now Cape Canaveral, on Canaveral Island, Florida, this is [NASA](#)’s operating site. The area was called Cape Canaveral until 1963, when it was renamed in honour of President [John F. Kennedy](#). It officially returned to its earlier name in 1973.

Capitol The meeting-place of the U.S. [Congress](#).

Charlie Brown Owner of [Snoopy](#) in Charles Schulz’s *Peanuts* cartoon strip, 1950-2000.

Congress The congress is the [legislative](#) (law-making) branch of the U.S. Government. It is made of the [Senate](#) (with two senators per state) and the [House of Representatives](#) (where each state is represented according to its population). Among its responsibilities are decisions on taxes, borrowing of money from abroad, and regulation of business.

Dock To couple two or more spacecraft in space.

Executive Branch The Executive Branch of the U.S. government consists of the President and his deputies. The task of the executive is to ensure that laws are executed.

Führer The German word for leader, and the title by which Adolf Hitler was known.

Gallup Polling organization founded in 1935 by George Gallup as the American Institute of Public Opinion

Gemini The twelve two-man Gemini spacecraft were launched by the U.S. between 1964 and 1967. They were used to develop manual manoeuvring of space craft, [docking](#) techniques and automatic re-entry to the earth’s atmosphere.

Great Society [Lyndon Johnson’s](#) description of the reform programme which he promised to voters in the 1964 presidential elections. A large number of reforms were to be introduced by law, including federal support for education, expansion of Social Security, and measures to prevent states from depriving citizens of voting rights. Most of the laws which he proposed were passed by congress.

Great Year The time taken for the position of the sun at the Spring (Vernal) Equinox (March 21st) to move through the zodiac: i.e. approximately 26,000 years. This can be divided into twelve ages, each named after the sign of the zodiac in which the sun appears at that time. The ages last about 2150 years each, but astrologers do not agree on the methods for discovering when an age begins and ends.

House of Representatives See [Congress](#)

Houston [NASA](#)'s manned space-flight centre was established in Houston, Texas, in 1961.

Joint Session A Joint Session of [Congress](#) takes place when both branches of the U.S. Congress, the Senate and the House of Representatives, assemble together. A joint session is held for the swearing-in of the President and for important addresses by the President and other dignitaries.

Legislative Branch: The task of a legislative body is to make laws. The Legislative Branch of the U.S. government is the U.S. [Congress](#).

Mercury The name given to the first U.S. space flights, launched between 1961 and 1963.

Moonwalk To walk on the moon.

NASA The National Aeronautics and Space Administration, a governmental agency established in 1958 for to undertake research and development for the exploration of space.

National Space and Aeronautics Council Established by President Eisenhower in 1958, and maintained by Kennedy and Johnson. NSAC was responsible for guiding space policy. The Secretary for State, the Secretary for Defense, [NASA](#)'s administrator (see [James Webb](#)) and the Chairman of the Atomic Energy Commission sat on the Council.

Pravda The official newspaper of the Communist Party in the [Soviet Union](#).

Revenue Sharing Reallocation of tax from one unit of government to another. Under the Revenue Sharing programme introduced by [President Richard Nixon](#) in 1972, money from federal taxes was given to state and regional authorities, with few restrictions on how it was to be spent. This was based on the reasoning that these authorities would have the best understanding of their areas' needs. The programme continued until 1986.

Sea of Tranquility The Sea of Tranquility is basalt plain on the moon, thought to be a sea by early astronomers. It was the chosen landing site for [Apollo 11](#) because it is relatively free of craters, although in the event, Armstrong had to manoeuvre the lunar module away from the original site to avoid the edge of a crater.

Senate See [Congress](#).

Snoopy [NASA](#)'s unofficial mascot since the 1960s, when Charles Schulz drew an 'Astronaut Snoopy' for the space programme. Snoopy is the beagle who starred in Charles Schulz's *Peanuts* cartoon strip, 1950-2000.

Soviet Union The Union of Socialist Soviet Republics which was under the one-party rule of the Communist Party in Moscow. The Soviet Union launched the first satellite (1957) and the first manned space flight (1961), and continued throughout the 1960s to develop its space programme, launching a number of intelligence satellites and working on the secret N1-L3 project, with which it hoped to land a man on the moon before the U.S.

Space Act The National Aeronautics and Space Act of 1958 created [NASA](#) and, with amendments, continues to govern it today.

Space Committees In 1958, Congress established a Space Committee in each of the Senate and House of Representatives to advise on space policy. Throughout the 1960s, these committees generally supported [NASA](#).

Sputnik The Sputnik satellites were launched by the [Soviet Union](#) from 1957. Sputnik I weighed 86 kilos and was the first satellite ever launched.

Welfare Payments made to the old, the sick and the poor. [Lyndon Johnson](#)'s [Great Society](#) Programme expanded welfare provisions; President [Richard Nixon](#) proposed to reform the system by guaranteeing a minimum income. This proposal failed, although he succeeded in establishing revenue sharing, which gave local authorities more power to tackle poverty.

Workfare The requirement that healthy adults receiving welfare payments should do some sort of work, usually in the community and arranged by social services. [Lyndon Johnson](#), [John F. Kennedy](#), and [Richard Nixon](#) all favoured the promotion of workfare

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Document 1

Kennedy and the Space Race, April 1961

Document 1a.

I hope you would not say that I am trying to frighten you if I remind you that the [Soviet Union](#) has rockets in a quantity and of a quality unequalled by any other country in the world. This can be confirmed by the launching of our [Sputniks](#) and cosmic rockets. Under these conditions, to settle disputable questions in the way the military revanchist quarters of West Germany want - by war - is tantamount to suicide, to the destruction of one's country.

Source: -- [Nikita Khrushchev](#), letter to Chancellor Konrad Adenauer, [Pravda](#), August 26, 1959, quoted in Joseph M. Goldsen (editor): *Outer Space in World Politics*. London, 1963, p 43

Document 1.b

Immediate Release

April 12, 1961

Office of the White House Press Secretary

The White House

FOLLOWING IS THE TEXT OF THE PRESIDENT'S TELEGRAM TO THE CHAIRMAN OF THE COUNCIL OF MINISTERS; UNION OF SOVIET SOCIALIST REPUBLICS, N. S. KHRUSHCHEV:

12 April 1961

The people of the United States share with the people of the Soviet Union their satisfaction for the safe flight of the astronaut in man's first venture into space. We congratulate you and the Soviet scientists and engineers who made this feat possible. It is my sincere desire that in the continuing quest for knowledge of outer space our nations can work together to obtain the greatest benefit to mankind.

THE WHITE HOUSE

WASHINGTON

[John F. Kennedy](#)

Source: John F. Kennedy Presidential Library

© U.S. National Archives and Records Administration

Document 1.c

Memorandum for Vice-President [[Lyndon Johnson](#)]

In accordance with our conversation I would like for you as Chairman of the Space Council [[National Space and Aeronautics Council](#)] to be in charge of making an overall survey of where we stand in space.

Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man. Is there any other space program which promises dramatic results on which we could win?

How much additional would it cost?

Are we working 24 hours a day on existing programs? If not, why not? If not, will you make recommendations to me as to how work can be speeded up.

In building large boosters should we put our emphasis on nuclear, chemical or liquid fuel, or a combination of all three?

Are we making maximum effort? Are we achieving necessary results?

I have asked [Jim Webb](#), [Dr. \[Jerome\] Weisner](#), [Secretary \[Robert\] McNamara](#) and other responsible officials to cooperate with you fully. I would appreciate a report on this at the earliest possible moment.

Source: John F. Kennedy Presidential Library

© U.S. National Archives and Records Administration

Exploring the Evidence

1. What, according to Khrushchev, does Soviet success with the *Sputnik* prove?
2. What does Kennedy indicate that he wants in his telegraph to Khrushchev?
3. What aims does Kennedy mention for the Space Programme in his memo to Johnson?
4. What strategies does Kennedy have for speeding up American achievement in space?
5. What reasons do the sources suggest for Kennedy's attitude?
6. What differences exist between Kennedy's telegram to Khrushchev and his memo to Johnson?
7. What value does Kennedy's telegram to Khrushchev have as a historical source?

Document 2

President [John F. Kennedy](#), Special Message to the [Congress](#) on Urgent National Needs

Delivered in person before a [joint session](#) of Congress

May 25, 1961

Finally, if we are to win the battle that is now going on around the world between freedom and tyranny, the dramatic achievements in space which occurred in recent weeks should have made clear to us all, as did the [Sputnik](#) in 1957, the impact of this adventure on the minds of men everywhere, who are attempting to make a determination of which road they should take. Since early in my term, our efforts in space have been under review. With the advice of the [Vice President \[Lyndon Johnson\]](#), who is Chairman of the National Space Council [[National Space and Aeronautics Council](#)], we have examined where we are strong and where we are not, where we may succeed and where we may not. Now it is time to take longer strides - time for a great new American enterprise - time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on earth.

I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshalled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment.

Recognizing the head start obtained by the [Soviets](#) with their large rocket engines, which gives them many months of leadtime, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts on our own. For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. We take an additional risk by making it in full view of the world, but as shown by the feat of astronaut [Shepard](#), this very risk enhances our stature when we are successful. But this is not merely a race. Space is open to us now; and our eagerness to share its meaning is not governed by the efforts of others. We go into space because whatever mankind must undertake, free men must fully share.

I therefore ask the Congress, above and beyond the increases I have earlier requested for space activities, to provide the funds which are needed to meet the following national goals:

First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish. We propose to accelerate the development of the appropriate lunar space craft. We propose to develop alternate liquid and solid fuel boosters, much larger than any now being developed, until certain which is superior. We propose additional funds for other engine development and for unmanned explorations - explorations which are particularly important for one

purpose which this nation will never overlook: the survival of the man who first makes this daring flight. But in a very real sense, it will not be one man going to the moon - if we make this judgment affirmatively, it will be an entire nation. For all of us must work to put him there.

Secondly, an additional 23 million dollars, together with 7 million dollars already available, will accelerate development of the Rover nuclear rocket. This gives promise of some day providing a means for even more exciting and ambitious exploration of space, perhaps beyond the moon, perhaps to the very end of the solar system itself.

Third, an additional 50 million dollars will make the most of our present leadership, by accelerating the use of space satellites for world-wide communications.

Fourth, an additional 75 million dollars - of which 53 million dollars is for the Weather Bureau - will help give us at the earliest possible time a satellite system for world-wide weather observation.

Let it be clear - and this is a judgment which the Members of the Congress must finally make - let it be clear that I am asking the Congress and the country to accept a firm commitment to a new course of action, a course which will last for many years and carry very heavy costs: 531 million dollars in fiscal '62 - an estimated seven to nine billion dollars additional over the next five years. If we are to go only half way, or reduce our sights in the face of difficulty, in my judgment it would be better not to go at all.

Now this is a choice which this country must make, and I am confident that under the leadership of the Space Committees of the Congress, and the Appropriating Committees, that you will consider the matter carefully.

It is a most important decision that we make as a nation. But all of you have lived through the last four years and have seen the significance of space and the adventures in space, and no one can predict with certainty what the ultimate meaning will be of mastery of space.

I believe we should go to the moon. But I think every citizen of this country as well as the Members of the Congress should consider the matter carefully in making their judgment, to which we have given attention over many weeks and months, because it is a heavy burden, and there is no sense in agreeing or desiring that the United States take an affirmative position in outer space, unless we are prepared to do the work and bear the burdens to make it successful. If we are not, we should decide today and this year.

This decision demands a major national commitment of scientific and technical manpower, materiel and facilities, and the possibility of their diversion from other important activities where they are already thinly spread. It means a degree of dedication, organization and discipline which have not always characterized our research and development efforts. It means we cannot afford undue work stoppages, inflated costs of material or talent, wasteful interagency rivalries, or a high turnover of key personnel.

New objectives and new money cannot solve these problems. They could in fact, aggravate them further - unless every scientist, every engineer, every serviceman, every technician,

contractor, and civil servant gives his personal pledge that this nation will move forward, with the full speed of freedom, in the exciting adventure of space.

Source: Source: John F. Kennedy Presidential Library
© U.S. National Archives and Records Administration

Exploring the Evidence

1. What reasons are given in this speech for America's failure to match the Soviet achievement in space so far?
2. According to Kennedy, whose is the decision on whether to accelerate the space programme?
3. What reasons for confidence in the space programme does Kennedy give America?
4. To what extent does this speech demonstrate concern with status?
5. How effectively does Kennedy connect cold war issues with progress in space?
6. Compare this speech with Kennedy's memo to Johnson (Document 1c). Which of the concerns expressed there are echoed here, and which are emphasised?

Document 3

Gallup Poll inquiries into American priorities, 1961 to 1965

Gallup Poll #645, survey taken between 28th May and 2nd June 1961

Question

Here is a list of things for which President [\[John F.\]Kennedy](#) has asked Americans to make sacrifices. For which of these would you be most willing to make sacrifices, even if it meant increasing your own taxes? Please read off your answers by number

Sample Size: 3521

Questions	%	No.
Increasing our space research efforts – sending a man to moon	21.44	755
Increasing economic aid to underdeveloped countries	21.24	748
Increasing military aid to other nations	9.40	331
Stepping up our efforts to tell the facts about U.S. policy to other countries of the world	25.56	900
Starting a nationwide program of providing nuclear fall-out shelters, strengthen the Civil Defense program	27.80	979
Increasing funds to improve the armed forces	28.37	999
Starting a program to develop new job skills for workers now laid off because of new machinery	66.86	2354
None	4.83	170
Don't know	1.99	70
No code or no data	0.85	30

Question

Which THREE of these national problems would you like to see the government devote MOST of its attention to in the next year or two

Gallup Poll #709, survey taken between 2 April and 7 April 1965

Sample Size: 3532

Questions	%	No
A) Trying to improve public education	45.07	1592
B) Helping people in poor areas	31.99	1130
C) Reaching the moon before Russia does	4.33	153
D) Trying to reduce racial discrimination	29.08	1027
E) Trying to conquer killer diseases	36.52	1290
F) Trying to reduce the amount of crime in the U.S.	40.74	1439
G) Trying to reduce unemployment	35.19	1243
H) Trying to improve highway safety	18.37	649
I) Trying to reduce pollution of air and water	16.76	592
J) Trying to beautify America	3.17	112
K) Trying to improve housing, clearing slums	21.49	759
Don't Know		

Source: George Horace Gallup: *The Gallup Poll: Public Opinion, 1935-1971*. New York, 1972

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Exploring the Evidence

1. What are the most popular causes in the 1961 and 1965 surveys?
2. How does approval of investment in a manned moon landing change between 1961 and 1964.
3. Do the respondents to the 1961 survey choose one, or more than one, causes to fund?
4. What differences exist between the range of options offered in 1961 and the range offered in 1965?
5. What fears on the part of the American public are revealed by these surveys?
6. Based on the questions asked and the design of the surveys, how can one explain the differences in approval of investment in a manned moon landing in 1961 and 1965?
7. Based on events in America and the world between 1961 and 1965, how can one explain the differences in approval of investment in a manned moon landing in 1961 and 1965?
8. What are the advantages and what are the limitations of survey data for historians?

Document 4

[James E. Webb](#) Oral History Interview I, April 29, 1969, by T. H. Baker.

Interview I

Interviewee: James E. Webb

Interviewer: T. H. Baker

Date: April 29, 1969

Tape 1 of 1

Baker: This is the interview with James E. Webb, who was Administrator of [NASA](#) from 1961 to 1968...

Baker: Then, sir, to carry on approximately chronologically here, by '63 and '64 NASA had become the subject of general debate and some criticism. Presumably, at least in time, it seems to have been triggered by the \$5.7 billion budget request there in '63, and there developed a good deal of criticism over - well, you know the range as well as I, whether the moon was really worth it, whether more money for education, less for space, the whole thing. Did this provoke any serious doubts within the administration?

Webb: Well, when you say 'within the administration,' you are going all the way to the Defense Department, to the State Department, to the scientists - not among those responsible.

Baker: That is better phraseology.

Webb: I suppose there were people around Mr. [Robert McNamara](#) in the Defense Department that did have some concern about the size of the money required to do these jobs. And, you see, the larger our budget got, the more exacerbating became the desire of the military to have it and a feeling that somehow this should have been their role. And Mr. McNamara had many other problems with the military, and this was one more. I think among the science people, they saw this not so much as doubts and this kind of thing but as an opportunity to attack the program, because we had been very clear in the beginning, it would take between twenty and forty billion dollars. We had to rise to run at a six billion dollar level in order to make the timetable and move, you see, and to do it most efficiently. We had made it clear that we could get the scientists to undertake the necessary research and that we could put the development job on industry and it would be done. In the early months they thought we'd stumble and fall, you see. There was a good deal of feeling, "well, we'll just stand by and these NASA boys claim this, but they won't make it, and we'll pick up the basket of groceries after they drop them."

...

Webb: But Johnson was clearly as President beginning to look beyond the space program toward his total thing and telling me that I had to hold this under \$5 billion on the expenditure side in order for him to give this promise to [Harry Byrd](#) and get his support for a tax bill.

Baker: And there were general cuts going on at that time. It was not that NASA was being singled out.

Webb: Sure, there was a very hard effort to hold the budget down, but the point is that this is his first withdrawal of support. This is the first indication that he is taking a different position

Baker: Is part of this, particularly here in '64 and '65, just a conflict for money between the [Great Society](#) and other programs?

Webb: I don't know the answer to that question. I would state it differently if I had to say it. I would say that Mr. Johnson as President was struggling with a large number of very hard programs, that he was approaching them in the way that he had learned to approach things through his whole life. He was listening to a lot of people and he was preserving a certain amount of uncertainty on the part of people as to exactly what he would do, which is not an unknown technique among presidents and budget directors and people like that....

Baker: How about the effect of the Viet Nam war as it began to increase in volume and tempo?

Webb: For several years I did not think this was a critical element in terms of NASA's budget. It may have been more critical than I had thought it would be.

Baker: Particularly after, say, '66?

Webb: Now look, in the first budget that we lost the \$600 million and dropped back from \$5.7 billion, that Kennedy had recommended, to about \$5.1 or .2 billion, and then came Johnson's budget in which he asked for, I think, something like \$5.2 or 5.3 billion, something of this kind; then the next year he asked for about \$10 million more than Congress had appropriated. That doesn't indicate, you see, that the Viet Nam war was having a large effect. He was in a sense giving me the opportunity to fight for what I regarded as extremely important, not just because it was to stay ahead of the Russians but it was to develop the technological capabilities and to make sure that we could exercise the options that were required. And remember, this covered aeronautical research and this was a pretty important part of the Viet Nam war.

Source: Lyndon B. Johnson Presidential Library

© U.S. National Archives and Records Administration

Exploring the Evidence

1. What problems faced NASA under the Johnson Administration, according to Webb?
2. What connections between the space programme and America's military problems and development are discussed by Webb and Baker?
3. Why does Webb argue that the Vietnam War did not affect funding given to NASA?
4. What is Webb's attitude to the interviewer?
5. Is Baker an impartial interviewer? Explain your answer.
6. What impression does Webb create of Johnson's leadership style?
7. Compare this document with Kennedy's speech to congress (Document 2). How did allocation of money for space compare with his projections?
8. What are the advantages and disadvantages of interviewing a subject specifically so that their words may be stored as 'oral history'? Use evidence from the document.

Document 5

Report on the Apollo 10 Mission, *TIME* Magazine, June 6th, 1969

By the time they splashed down in the Pacific last week, Apollo 10 Astronauts Tom Stafford, Eugene Cernan and John Young had erased just about all doubt that the U.S. can meet its goal of landing men on the moon before the end of 1970. Even as the astronauts were being welcomed aboard the recovery carrier Princeton, American space officials were looking confidently ahead to the [Apollo 11](#) lunar-landing mission now scheduled for July. Said Thomas Paine, head of the [National Aeronautics and Space Administration](#) in [Houston](#): "Today, this moment, with the [Apollo 10](#) crew safely on board, we know we can go to the moon. We will go to the moon."

In addition to clearing the way for a summer landing on the surface of the moon, the exploits of the command module [Charlie Brown](#), the lunar module [Snoopy](#) and the Apollo 10 crew brought the nation and the world the most revealing views of space flight that have ever been available. Remarkable as they were, however, the televised pictures that came across nearly a quarter of a million miles could not begin to match the quality of the movie and still photographs taken by the astronauts.

Awesome Views. Shots of the moon taken from Apollo 10 in its 69-mile-high orbit clearly showed that some areas of the moon have a brownish tint, confirming the astronauts' description. There were awesome views of rugged mountains, long canyons and deep craters with white walls glinting starkly in the sunlight. By contrast, the cloud-swirled earth looked warm and hospitable as it was seen rising above the moon's horizon. Shots of alternate landing sites in the [Sea of Tranquility](#) gave support to Stafford's observation that they were "very smooth, like wet clay." The cameras also caught views that were not televised during the mission: Charlie Brown and Snoopy each shown against the background of the moon as they were preparing to [dock](#).

On its return to earth, Apollo 10 scored a near bull's-eye landing just three miles from the recovery carrier. TV camera crews aboard the Princeton first caught a spectacular view of what probably was Apollo 10's jettisoned service module, glowing like a blazing meteor as it streaked across the predawn sky before being completely consumed by the more than 5,000° F. heat of reentry. Then, silhouetted against the lightening sky, the bulbous command module came into view, dwarfed by the trio of 83-ft.-wide parachutes that slowed its descent. As the module drifted down, the sky brightened enough for viewers to see the orange-and-white segments of the parachutes and pick out details of the rescue helicopters hovering protectively like giant fireflies, their bright running lights flashing on and off. Finally, precisely eight days, three minutes and 25 seconds after its lift-off from [Cape Kennedy](#) - a scant 35 seconds less than the total time calculated for the entire mission by planners six months ago - Charlie Brown splashed safely into the warm waters.

On the deck of the Princeton, Stafford, Cernan and Young looked remarkably fresh as they emerged from the recovery helicopter. Clean-shaven, clad in neat, light blue flight overalls (they had changed aboard the helicopter), the astronauts were greeted by cheers from the Princeton's white-suited sailors and the shrill welcoming notes of boatswain's pipes. Then Stafford summarized the feelings of the crew with a sentence that a few years ago would have been appropriate only in science fiction: "It's really great to be back from the moon."

Earthy Language. "This is a proud moment for the country," [President \[Richard\] Nixon](#) told the astronauts in a three-minute phone call from his White House office to the Princeton, and other congratulations came in from all the world. But the acclaim was not universal. In a telegram to the President and to NASA, Larry Poland, 29, president of Miami Bible College Inc., complained that the Apollo 10 astronauts had carried "the language of the street" to the moon and called on the crew to repent their "profanity, vulgarity and blasphemy." Each astronaut, said the minister, should be required to issue a public statement of apology. The language of the Apollo 10 crew was indeed more earthy than any previously broadcast from space. But the lapses were understandable. When Snoopy began gyrating wildly after its descent stage had been jettisoned, an alarmed cry of "Son of a bitch!" escaped from the startled Cernan. As Astronaut Stafford was preparing to take black and white pictures during Snoopy's low pass at the moon, he suddenly shouted: "You know, this goddam filter has failed on me." Finally, at the end of the day, a ground controller asked: "How are you guys doing?" The reply: "The crew status is at tired, and happy and hungry and thirsty and horny and all those other things."

NASA officials refused to be shocked.

"Those are human beings up there, and they acted like human beings," one said. "That's all, no more and no less."

Source: *TIME* Magazine, June 6th, 1969.

© 1969, *TIME* Magazine

Exploring the Evidence

1. What were the achievements of Apollo 10?
2. What criticism has been levelled at the astronauts, and how does NASA respond?
3. Based on this article, what is *TIME* magazine's attitude to the space program?
4. What evidence of division in American society appears in this report, and where does *TIME* magazine stand on the issue concerned?
5. What is the significance of the names given to the command module and the lunar module?
6. What evidence does this document provide on the role of mass-media in the history of U.S. space exploration?
7. How does the reporting on this event correspond with John F. Kennedy's arguments on the reasons to accelerate space exploration (Document 2)?

Document 6

IN EVENT OF MOON DISASTER

Memo to [Harry R. Haldeman](#) from [William Safire](#), July 18, 1969.

Fate has ordained that the men who went to the moon to explore in peace will stay on the moon to rest in peace.

These brave men, [Neil Armstrong](#) and [Edwin Aldrin](#), know that there is no hope for their recovery. But they also know that there is hope for mankind in their sacrifice.

These two men are laying down their lives in mankind's most noble goal: the search for truth and understanding.

They will be mourned by their families and friends; they will be mourned by the nation; they will be mourned by the people of the world; they will be mourned by a Mother Earth that dared send two of her sons into the unknown.

In their exploration, they stirred the people of the world to feel as one; in their sacrifice, they bind more tightly the brotherhood of man.

In ancient days, men looked at the stars and saw their heroes in the constellations. In modern times, we do much the same, but our heroes are epic men of flesh and blood.

Others will follow, and surely find their way home. Man's search will not be denied. But these men were the first, and they will remain the foremost in our hearts.

For every human being who looks up at the moon in the nights to come will know that there is some corner of another world that is forever mankind.

PRIOR TO THE PRESIDENT'S STATEMENT:

The President should telephone each of the widows-to-be.

AFTER THE PRESIDENT'S STATEMENT, AT THE POINT WHEN NASA ENDS COMMUNICATIONS WITH THE MEN:

A clergyman should adopt the same procedure as a burial at sea, commending their souls to "the deepest of the deep," concluding with the Lord's Prayer.

Source: U.S. National Archives and Records Administration.

© U.S. National Archives and Records Administration

Exploring the Evidence

1. What is the purpose of this statement?
2. What order of events does the statement anticipate?
3. What consolation is the President to offer to the nation?
4. Does this document presume that Americans watching and listening have certain religious beliefs in common?
5. Based on the language and emphasis in the document, whom do the stricken astronauts represent?
6. What evidence does the document provide about American confidence in progress?
7. Why should it have been considered necessary to prepare this statement?

Document 7

President Nixon Talks to the Apollo 11 astronauts

Extract from [Norman Mailer](#), *Fire on the Moon*.

Well, the flag was up. The [Capcom](#) spoke. He asked the astronauts to stand in view of the camera, then announced that the [President of the United States \[Richard Nixon\]](#) wanted to say a few words.*

[ARMSTRONG](#):

That would be an honour.

CAPCOM:

Go ahead, Mr President, this is [Houston](#). Out.

It had been announced in advance that the President would speak to the astronauts, but the liberal portion of the Press groaned, to be answered by a pattering of stiff hands from the patriots in the room.

PRESIDENT NIXON: Niel and Buzz, I am talking to you by telephone from the Oval Room at the White House. And this certainly has to be the most historic telephone call ever made.

Large jeers from the audience. The most expensive telephone call ever made! Stentorian hand clapping.

PRESIDENT NIXON: I just can't tell you how proud we all are of you. For every American this has to be the proudest day of our lives. And for people all over the world, I am sure they too join with Americans in recognizing what a feat this is. Because of what you have done, the heavens have become a part of man's world. And as you talk to us from the [Sea of Tranquility](#), it inspires us to double our efforts to bring peace and tranquility to earth. For one priceless moment in the whole history of man, all the people on this earth are truly one. One in their pride in what you have done. And one in our prayers that you will return safely to earth.

Every word had its function. It could be said that the psychology of machines begins where humans are more machinelike in their actions than the machines they employ. 'Thank you Mr President,' answered Armstrong in a voice not altogether in control. What a moment for Richard Nixon if the first tears shed on the moon flowed on the consequence of his words! 'It's a great honor and a privilege,' Armstrong went on, 'to be representing not only the United States, but men of peace of all nations.' When he finished, he saluted.

Some of the crowd jeered again. The image of Nixon faded on home TV screens, his voice was gone from the Theater. The moon walk continued. In fact, it was not half-done, but the early excitement had ebbed in this last play of rhetoric – the minds of the Press had gone on to the question of whether Nixon was considering it politically advantageous to support a future program of space.

Source: [Norman Mailer](#): *A Fire on the Moon*. London, 1970, pp 104-5

© 1970 Norman Mailer

* There are minor differences from the transcript in the White House Press Release, which has 'redoubled' instead of 'doubled', and 'men of peaceable nations' instead of 'men of peace of all nations' (Armstrong). NASA transcripts have 'redoubled' and 'men of peace of all nations'.

Exploring the Evidence

1. How is the stage prepared for the President's conversation with the astronauts?
2. What lesson does Nixon draw from the name of the Sea of Tranquility?
3. How is the press divided, in Mailer's account?
4. What connection does Mailer suggest between technical advance and human behaviour?
5. 'It had been announced in advance that the President would speak to the astronauts'. How should that affect our reading of the press's reaction to Nixon?
6. What factors may have prompted Nixon and Armstrong to emphasise peace in this conversation?
7. Comment on the similarities in and the differences between Nixon's telephone call to the moon and his planned statement in case of disaster. (Document 6)

Document 8

[Neil A. Armstrong](#), [Michael Collins](#), and [Edwin E. Aldrin, Jr.](#) “Remarks to a Special Session of [Congress](#)”. September 16, 1969

Mr. Armstrong. Mr. Speaker, Mr. President, Members of Congress, distinguished guests, we are greatly honored that you have invited us here today. Only now have we completed our journey to land on and explore the moon, and return. It was here in these Halls that our venture really began. Here the [Space Act of 1958](#) was framed, the chartering document of the [National Aeronautics and Space Administration](#). And here in the years that followed the key decisions that permitted the successive steps of Mercury and Gemini and Apollo were permitted.

Your policies and the marvels of modern communication have permitted people around the world to share the excitement of our exploration. And, although you have been informed of the results of the [Apollo 11](#), we are particularly pleased to have this opportunity to complete our work by reporting to you and through you to the American people. My colleagues share the honor of presenting this report. ..

Mr. Armstrong. We landed on the [Sea of Tranquillity](#), in the cool of the early lunar morning, when the long shadows would aid our perception.

The sun was only 10° above the horizon. While the earth turned through nearly a full day during our stay, the sun at Tranquillity Base rose barely 11° - a small fraction of the month-long lunar day. There was a peculiar sensation of the duality of time - the swift rush of events that characterizes all our lives - and the ponderous parade which marks the aging of the universe.

Both kinds of time were evident - the first by the routine events of the flight, whose planning and execution were detailed to fractions of a second - the latter by rocks around us, unchanged throughout the history of man - whose 3-billion year-old secrets made them the treasure we sought.

The plaque on the Eagle which summarized our hopes bears this message:

Here men from the planet earth first set foot upon the moon July 1969 A.D.

We came in peace for all mankind. Those nineteen hundred and sixty-nine years had constituted the majority of the [ages of Pisces](#), a 12th of the [great year](#). That is measured by the thousand generations the precession of the earth's axis requires to scribe a giant circle in the heavens.

In the next 20 centuries, the [age of Aquarius](#) of the great year, the age for which our young people have such high hopes, humanity may begin to understand its most baffling mystery - where are we going?

The earth is, in fact, traveling many thousands of miles per hour in the direction of the constellation Hercules - to some unknown destination in the cosmos. Man must understand his universe in order to understand his destiny.

Mystery however is a very necessary ingredient in our lives. Mystery creates wonder and wonder is the basis for man's desire to understand. Who knows what mysteries will be solved in our lifetime, and what new riddles will become the challenge of the new generations?

Science has not mastered prophesy. We predict too much for next year yet far too little for the next 10. Responding to challenge is one of democracy's great strengths. Our successes in space lead us to hope that this strength can be used in the next decade in the solution of

many of our planet's problems. Several weeks ago I enjoyed the warmth of reflection on the true meanings of the spirit of Apollo.

I stood in the highlands of this Nation, near the Continental Divide, introducing to my sons the wonders of nature, and pleasures of looking for deer and for elk.

In their enthusiasm for the view they frequently stumbled on the rocky trails, but when they looked only to their footing, they did not see the elk. To those of you who have advocated looking high we owe our sincere gratitude, for you have granted us the opportunity to see some of the grandest views of the Creator.

To those of you who have been our honest critics, we also thank, for you have reminded us that we dare not forget to watch the trail. We carried on Apollo 11 two flags of this Union that had flown over the [Capitol](#), one over the [House of Representatives](#), one over the [Senate](#). It is our privilege to return them now in these Halls which exemplify man's highest purpose - to serve one's fellow man.

We thank you, on behalf of all the men of Apollo, for giving us the privilege of joining you in serving - for all mankind.

[Applause, the Members rising.]

(Thereupon, the flags were presented to the Speaker and to the Vice President.)

Source: Peter B. Levy (editor) *America in the Sixties. Left, Right and Center. A Documentary History*. London, 1998, 313-6

© 1998 Peter Levy

Exploring the Evidence

1. Why, according to Armstrong, is the journey to the moon and back only complete when the astronauts have appeared at the congress?
2. What does Armstrong choose to consider the starting-point in this journey?
3. Apart from the space project, what turning-point for humanity does Armstrong emphasise in this speech?
4. What, according to Armstrong, is the role of mystery in human affairs?
5. What is the reaction of the Congress to the astronauts?
6. What is Armstrong's attitude to science?
7. What elements of Armstrong's speech could be called unscientific?
8. Is this a useful source for a researcher who wants to discover how members of Congress saw the significance of the moon-landing?
9. How does Armstrong's assessment of the significance of the moon-landing correspond with Nixon's comments in his telephone call to the astronauts? (Document 7)

Document 9

President Richard Nixon's Radio and Television Address to the Nation on Domestic Programs: "New Federalism" Address. August 8, 1969

Revenue Sharing

We come now to a proposal which I consider profoundly important to the future of our Federal system of shared responsibilities. When we speak of poverty or jobs or opportunity or making government more effective or getting it closer to the people, it brings us directly to the financial plight of our States and cities.

We can no longer have effective government at any level unless we have it at all levels. There is too much to be done for the cities to do it alone, for Washington to do it alone, or for the States to do it alone.

For a third of a century, power and responsibility have flowed toward Washington, and Washington has taken for its own the best sources of revenue.

We intend to reverse this tide, and to turn back to the States a greater measure of responsibility - not as a way of avoiding problems, but as a better way of solving problems.

Along with this would go a share of Federal revenues. I shall propose to the [Congress](#) next week that a set portion of the revenues from Federal income taxes be remitted directly to the States, with a minimum of Federal restrictions on how those dollars are to be used, and with a requirement that a percentage of them be channeled through for the use of local governments.....

In the final analysis, we cannot talk our way out of poverty; we cannot legislate our way out of poverty; but this Nation can work its way out of poverty. What America needs now is not more welfare, but more "workfare."

The task of this Government, the great task of our people, is to provide the training for work, the incentive to work, the opportunity to work, and the reward for work. Together these measures are a first long step in that direction.

For those in the welfare system today who are struggling to fight their way out of poverty, these measures offer a way to independence through the dignity of work.

For those able to work, these measures provide new opportunities to learn work, to find work.

For the working poor - the forgotten poor - these measures offer a fair share in the assistance given to the poor.

This new system establishes a direct link between the Government's willingness to help the needy and the willingness of the needy to help themselves.

It removes the present incentive not to work and substitutes an incentive to work; it removes the present incentive for families to break apart and substitutes an incentive for families to stay together.

It removes the blatant inequities and injustices and indignities of the welfare system.

It establishes a basic Federal floor so that children in any State can have at least the minimum essentials of life....

Poverty will not be defeated by a stroke of a pen signing a check, and it will not be reduced to nothing overnight with slogans or ringing exhortations.

Poverty is not only a state of income. It is also a state of mind, a state of health. Poverty must be conquered without sacrificing the will to work, for if we take the route of the permanent handout, the American character will itself be impoverished.

In my recent trip around the world, I visited countries in all stages of economic development; countries with different social systems, different economic systems, different political systems.

In all of them, however, I found that one event had caught the imagination of the people and lifted their spirits almost beyond measure: the trip of Apollo II to the moon and back. On that historic day, when the astronauts set foot on the moon, the spirit of Apollo truly swept through this world. It was a spirit of peace and brotherhood and adventure, a spirit that thrilled to the knowledge that man had dreamed the impossible, dared the impossible, and done the impossible.

Abolishing poverty, putting an end to dependency - like reaching the moon a generation ago - may seem to be impossible. But in the spirit of Apollo, we can lift our sights and marshal our best efforts. We can resolve to make this the year not that we reached the goal, but that we turned the corner - turned the corner from a dismal cycle of dependency toward a new birth of independence; from despair toward hope; from an ominously mounting impotence of government toward a new effectiveness of government, and toward a full opportunity for every American to share the bounty of this rich land.

Thank you and goodnight.

Source: Richard J. Stillman (editor) *Basic Documents of American Public Administration since 1950*. New York, 1982, pp 196-200.

Exploring the Evidence

1. What financial reform does Nixon propose?
2. Who are the forgotten poor, and what will be done for them?
3. What encourages Nixon to believe that it is possible to abolish poverty in America?
4. What is the 'spirit of Apollo', according to this speech?
7. How does the 'spirit of Apollo', as identified in this speech, correspond with the proposals Nixon is making?
8. To what extent does Nixon's speech echo Armstrong's at Congress (Document 8)?

Document 10

'The Price of Space', possible economic benefits of the Space Race, 1970

However great the benefits – scientific, cultural, philosophical – manned space flight may bring, it is obvious that at its present enormous cost it can never be much more than a very rare and exceptional form of activity. At the current level of spending, the United States might be able to afford a landing on the moon every couple of months, and the USSR could probably do the same. Any attempt to establish permanent bases on the moon would demand a greatly increased level of expenditure – and a manned expedition to Mars would cost several times more than a lunar mission. Even a prosperous and scientifically orientated world state might be hard pressed to manage more than one planetary flight a year.

But this assumes that space technology remains at its present primitive level – which is absurd, though it is an absurdity commonly committed by scientists and engineers who should know better. The very first decade of the space age showed spectacular improvements in cost effectiveness; these will continue (though perhaps not at the same rate) and as the price per pound on payload in orbit steadily falls, so space operations will become more complex, more ambitious, and more commonplace.

Some actual figures from the recent past will give us a better perspective by which to judge the future. On January 31, 1958, the United States placed its first payload (Explorer 1) into orbit; it weighed only thirty-one pounds, yet was rightly regarded as an outstanding achievement. At that time, no one would have dared to predict that *less than ten years later* (November 9, 1967) a rocket capable of orbiting 140 *tons* would make a flawless maiden flight from [Cape Kennedy](#), and would carry men around the moon by Christmas of the following year...

Even more important than this amazing 10,000-fold increase in payload, however, was the reduction in the price tag. In 1958, it cost half a million dollars to put one pound in orbit. Ten years later, the Saturn V could do it for five hundred dollars – a mere one thousandth of the initial rate.

Now, it would be stupid to extrapolate these figures and to predict that by 1978 we will be orbiting million-ton payloads at a bargain rate of fifty cents per pound. The law of diminishing returns has already set in, and future improvements will become progressively more difficult. But they *will* occur, just as they have done in every other form of transportation, once the initial experimental stage has been passed. As they do, the cost of space travel will continue to decline. A decade ago it was preposterous; today it is merely exorbitant. In a few years it will be extravagant – by the end of the century it will be no more than expensive. And in the early 2000's, flight between earth and moon will be an ordinary commercial operation.

Source: Gene Farmer & Dora Jane Hamblin (editors) *First on the moon. A voyage with Neil Armstrong, Michael Collins, Edwin E. Aldrin Jr.* London, 1970, pp 377-8

© 1970 Farmer and Hamblin

Exploring the Evidence

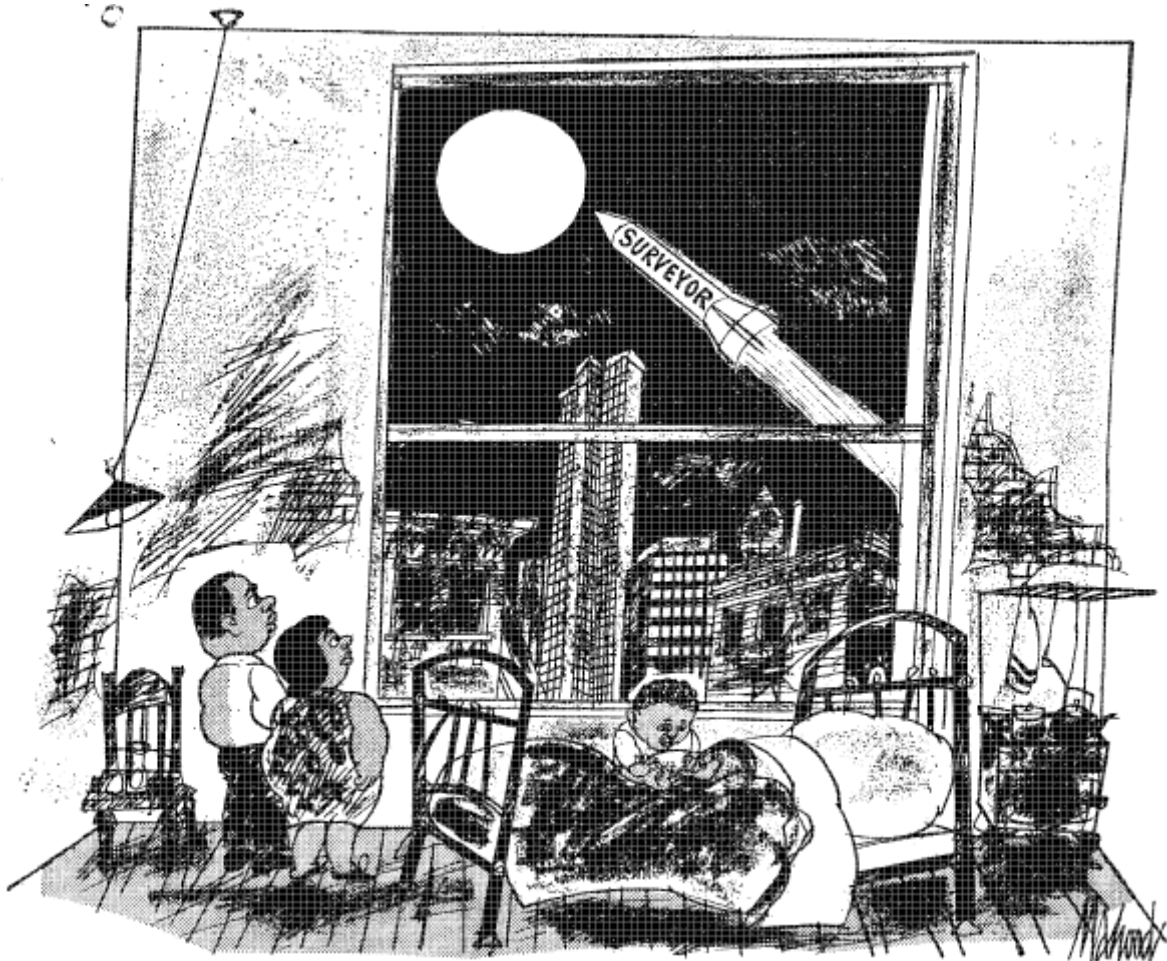
1. Why, according to Farmer and Hamblin, will the ‘price of space’ drop?
2. What form of space exploration interests Farmer and Hamblin most?
3. What do Farmer and Hamblin expect to occur in the early 2000s?
4. Do Farmer and Hamblin see current levels of spending on space as reasonable?
5. Do Farmer and Hamblin reject the possibility of making reliable claims about the future?
6. How convincing is the argument made here? Consider it as a product of its time.
7. What factors explain the drop in costs of space exploration between 1958 and 1968?
8. What “scientific, cultural, [and] philosophical” benefits were expected from space exploration?

Document 11

The moon-landing in cartoon and popular music: Ken Mahoud and Gil Scott-Heron

Document 11a.

Ken Mahoud: "I suppose the Government knows all it wants to know about us"



" I suppose the Government knows all it wants to know about us."

Source: Kenneth Mahood: "I suppose the Government knows all it wants to know about us"
First published by *The Times* (London), 2 June 1966

© 1966, Kenneth Mahood

Document 11b.

Gil Scott-Heron: "Whitey on the Moon". Released in 1969 by the "Last Poets" and 1972 by Gil Scott-Heron

A rat done bit my sister Nell. (with Whitey on the moon)
Her face and arms began to swell. (and Whitey's on the moon)
I can't pay no doctor bill. (but Whitey's on the moon)
Ten years from now I'll be payin' still. (while Whitey's on the moon)

The man jus' upped my rent las' night. ('cause Whitey's on the moon)
No hot water, no toilets, no lights. (but Whitey's on the moon)
I wonder why he's uppi' me? ('cause Whitey's on the moon?)
I wuz already payin' 'im fifty a week. (with Whitey on the moon)

Taxes takin' my whole damn check,
Junkies makin' me a nervous wreck,
The price of food is goin' up,
An' as if all that crap wuzn't enough:

A rat done bit my sister Nell. (with Whitey on the moon)
Her face an' arm began to swell. (but Whitey's on the moon)
Was all that money I made las' year (for Whitey on the moon?)
How come there ain't no money here? (Hmm! Whitey's on the moon)
Y'know I jus' 'bout had my fill (of Whitey on the moon)
I think I'll sen' these doctor bills, (to Whitey on the moon)

Source: Gil Scott-Heron: *Now and Then*. Edinburgh, 2001, p 21
© 1969. Gil Scott-Heron

Exploring the Evidence

1. What group is represented in Mahoud's cartoon?
2. What complaints does Scott Heron's character make?
3. What degree of poverty is represented in the sources?
4. How do the sources suggest connections between race and poverty?
5. Do the sources suggest in any way that the racial divide goes beyond material problems?
6. To what extent does Nixon's speech on 'Revenue Sharing' (Document 9) address issues raised in these sources?
7. How do these sources reflect the state of the civil rights movement in the late 1960s?

Document 12

“American Know-How”



Source: Courier-Journal [Louisville, Kentucky] 17 July, 1969 Cartoonist: Hugh Haynie.

Copyright Notice: The copyright holder has given permission for this cartoon to be used in an educational or informational context. It cannot be used in advertising or in political campaigns.

1. Describe what the child is doing in this cartoon
2. The cartoonist places the cartoon in an urban setting. What is the significance of this?
3. What degree of poverty is evident in this cartoon? How is it represented?
4. Why is the moon presented as being so large in this cartoon?
5. The title of the cartoon is “American Know-How”. In what context is this phrase usually used? Is it used in that context here? Explain your answer.
6. In Document 9, Nixon describes the Moon Landing as an event that caught ‘the imagination of the people’. To what extent does this cartoon support that statement?
7. How useful are political cartoons to historians of a particular period?